

**REMARKS**

This is in response to the non-final Official Action currently outstanding with respect to the above-identified application.

Claims 1-30 were present in this application as of the time of the issuance of the currently outstanding Official Action. By the foregoing Amendment, Claims 1, 9, 10, 13, 16, 17, 20, 21 and 28 have been amended. Claim 8 has been cancelled, without prejudice, and New Claims 31-40 have been added. No new matter has been added to this application by virtue of the foregoing amendment. Accordingly, upon the entry of the foregoing Amendment, Claims 1-7 and 9-40 will constitute the claims under active prosecution in this application.

A version of the claims as they will stand upon the entry of this amendment is set forth above as required by the Rules.

More specifically, it is noted that in the currently outstanding Official Action, the Examiner has:

1. Acknowledged Applicant's claim for foreign priority under 35 USC 119(a)-(d), and indicated that the required certified copies of the priority document have been received by the United States Patent and Trademark Office.
2. Provided Applicant with a copy of a Notice of References Cited (Form PTO-892) and copies of the references cited therein.

3. Acknowledged Applicant's Information Disclosure Statement of 13 November 2002 by providing Applicant with a copy of the Form PTO-1449 that accompanied that Statements duly signed, dated and initialed by the Examiner to confirm his consideration of the art disclosed therein, **but failed to similarly acknowledge Applicant's Information Disclosure Statement as filed with this application on 19 July 2000, appropriate acknowledgement of the latter Information Disclosure Statement in response to this communication is respectfully requested;**
4. Advised Applicant that the formal drawings submitted with this application on 19 July 2000 are objected to on the grounds that a legend such as -- PRIOR ART -- is required to be added to Fig. 16. **A new set of formal drawings for this application adopting the Examiner's suggestion is attached hereto in full compliance with the Examiner's requirement, and an indication of the acceptance of these new drawings in response to this communication is respectfully requested.**
5. Objected to the specification on the grounds that the reference numeral 16 should appear after the word "element" at page 12, line 5, **the foregoing Amendment adopts the Examiner's suggestion and withdrawal of the outstanding objection to the specification in response to this communication therefore is respectfully requested.**

6. Indicated that Claims 18, 19 and 22-27 are allowed, however, since Claims 18 and 19 are dependent upon Claim 16 it is believed that the Examiner intended to allow Claims 18 and 19 only if they were rewritten in independent form including all of the limitations of their respective base claims and any intervening claims as now has been done in the form of new claims 33 and 34;
7. Rejected Claims 10-15 and 17 under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicant regards as the invention;
8. Rejected Claim 6 under 35 USC 102(b) as being anticipated by the Jeon reference (US Patent No. 5,742,383);
9. Rejected Claims 10 and 16-17 under 35 USC 102(e) as being anticipated by the Shoji reference (US Patent No. 6,057,969);
10. Rejected Claims 1-4, 9 and 20-21 under 35 USC 103(a) as being unpatentable over the Okuda et al. reference (US Patent No. 5,883,709) in view of the Katayama reference (US Patent No. 5,875,167);
11. Rejected Claim 5 under 35 USC 103(a) as being unpatentable over the Okuda et al. reference (US Patent No. 5,883,709) in view of the Katayama reference (US Patent No. 5,875,167) further in view of the Imai reference (US Patent No. 5,283,600);
12. Rejected Claim 7 under 35 USC 103(a) as being unpatentable over the Jeon reference in view of the Okuda reference;

13. Rejected Claim 8 under 35 USC 103(a) as being unpatentable over the Nomura et al. reference (US Patent No. 5,995,304) in view of the Imai reference;
14. Rejected Claim 11 under 35 USC 103(a) as being unpatentable over the Shoji reference in view of the Nomura reference;
15. Rejected Claims 28-29 under 35 USC 103(a) as being unpatentable over the Shoji reference in view of the Jeon reference;
16. Rejected Claim 30 under 35 USC 103(a) as being unpatentable over the Jeon reference in view of the Ichiura reference (US Patent No. 5,708,635);
17. Cited certain additional prior art as being pertinent to Applicant's disclosure, but failed to apply any of that art against any of the presently pending claims;
18. Provided Applicant with a statement of his reasons for allowance regarding Claims 18, 19 and 22-27; and
19. Indicated that Claims 12-15 would be allowable if rewritten so as to overcome the stated rejection under 35 USC 112, second paragraph and so as to present those claims in independent form including all of the limitations of their respective base claims and any intervening claims.

Further comment concerning items 1-6 and 17-19 is not deemed to be required in these Remarks.

With respect to item 7 above, Applicant respectfully submits that the foregoing amendment removes the bases for all of the Examiner's currently outstanding rejections under 35 USC 112, second paragraph. Indeed, Applicant by the foregoing Amendment has made extensive amendments to the phraseology of the claims for the purpose of clarifying the expression of the concepts contained therein. It is believed that the nature of these amendments will be clear to the Examiner upon his reconsideration of the claims of this application. Accordingly, each of the changes made in response to this portion of the currently outstanding Official Action will not be discussed individually in these Remarks.

It is so well known as not to require citation that in order to reject a claim under 35 USC 102 as being anticipated it must be shown that all of the elements of the claim are contained in a single prior art reference in the same operative relationship to one another as that claimed. For the reasons set forth herein, Applicants respectfully submit that the Examiner not only has failed to establish anticipation under this standard, but he has failed to establish that the references he has applied against the present claims would have taught, disclosed or suggested the present invention to one of ordinary skill in the art at the time that it was made in a manner establishing the required *prima facie* case under 35 USC 103(a).

With respect to item 8, the Examiner's rejection of Claim 6 under 35 USC 102(b) as being anticipated by the Jeon reference (US Patent No. 5,742,383), it is to be understood that the present invention is arranged to include "a reflecting part for reflecting only light within a predetermined waveband" (emphasis added). On the other hand, the Jeon reference nowhere recites that the planar portion 12 reflects only light within a predetermined waveband. However, this feature of the present invention ensures the transmittance of the light that is to be used for recording and reproducing the signal, and also prevents stray light from occurring in the device, as described in the present specification at page 6, the last paragraph.

In addition, the object of the present invention is to attain a more accurate detection of the inclination of the lens. In order to attain this object, the present invention is so arranged that the lens whose inclination is to be measured comprises a plane surface whose normal direction virtually conforms to an optical axis direction. In this arrangement, the reflecting part reflects the light in the waveband other than the waveband used by the lens, and measurement of the inclination is carried out by using the light in the waveband other than the waveband used by the lens. Thus, this arrangement attains efficient reflection of the light by the reflecting part provided on the plane surface that is integrated with the lens. Therefore, with this arrangement it is possible to attain highly accurate detection of the inclination of the lens. Further, it is possible to avoid such deterioration of the accuracy as is caused by the reflected light from the curved lens surface.

Accordingly, Applicant respectfully submits that it stretches the teachings of the Jeon reference too far to say that the filter is the section that has the claimed function of "reflecting the light within a predetermined waveband with high reflectivity, while allowing the transmission of light out of the predetermined waveband". The filter is labeled 31 in Figure 2 of the Jeon reference. However, it is to be noted that the filter is provided separately from the lens whose inclination is to be determined (this lens is labeled as 10 in Fig. 2 of Jeon). Consequently, it is not possible to attain high accuracy in the detection of inclination using the filter of the Jeon reference.

<sup>102e</sup> 10, 16-17    <sup>103</sup> 11    } Shoji → Nomura

With respect to items 9 and 14, Applicant respectfully notes that each of the plurality of lenses has a plane surface for reflecting light that enters into the lens from a front side thereof. That part of the lens 10 of the Shoji reference that the Examiner alleges corresponds to the plane surface of the present invention, however, is covered with a member that seems to be a lens mirror cylinder that supports the lens 10.

Thus, that part of the lens to of the Shoji reference cannot reflect light that enters the lens from its front side. Therefore, the lens 10 of the Shoji reference does not have an arrangement in which "each of the plurality of lenses has a plane surface for reflecting the light that enters into the lens from its front side" as herein claimed. Specifically, in the present invention, the light that is used for measuring the inclination of the lens(es) can enter into the lens(es) behind the first lens. Accordingly, in the present invention it is possible to measure at the same time the inclinations of a plurality of the lenses constituting the combined lens at the same time. This does not appear to be possible in the Shoji structure.

Further, the present invention is provided with a reflecting part (which is provided on the plane surface and gives a high reflectivity with respect to a specific incident light). The Shoji reference does not teach, disclose or suggest such a reflecting part.

Hence, in the present invention unlike the Shoji reference, it is possible by the arrangement in which the measurement is carried out using the light in the waveband other than the waveband used by the lens to attain efficient reflection of the light by the reflecting part provided on the plane surface that is integral with the lens as well as highly accurate detection of the inclination of the lens. Accordingly, Applicant respectfully submits that the Examiner's rejections of Claims 10, 16 and 17 as being anticipated by the Shoji reference are in error and should be withdrawn. A decision so holding in response to this communication is respectfully requested.

10-11 12

1-4, 9, 20-21 | 5 | 7

With respect to items 10-12, Applicant respectfully **traverses** the Examiner's rejections. In support of this traversal, Applicant respectfully notes that ***the Examiner has admitted that the Okuda reference does not disclose that the reflecting part transmits light outside the waveband.*** Further, Okuda is so arranged that the light beam P for detection of the inclination is radiated from both the curved and plane portions of the lens as shown in Fig. 1. This also is clearly and completely different from the present invention wherein the light for detecting inclination is not emitted to the curved surface, but rather is emitted only to the plane surface and the reflecting surface.

Further, it is respectfully noted that the Katayama reference discloses an aperture control device 5 ***for controlling the aperture***. Aperture control is totally different from the detection of the inclination of the lens contemplated by the present invention and indeed by the Okuda reference.

Still further, the present invention provides the following features which are distinct from and not obvious in view of any combination of the references cited: (i) "the reflecting part for reflecting the light within a predetermined waveband with high reflectivity, while allowing the transmission of light out of the predetermined waveband"; (ii) a reflecting part to attain such effects as "detect lens inclination with high accuracy" and "to prevent stray light from occurring in the device".

Reconsideration and withdrawal of the rejections set forth in items 10-12 above, therefore, is respectfully requested in response to this communication.

With respect to item 13, Applicant has canceled Claim 8, without prejudice.



synji Jeon  
Jeon Ichiura  
28, 29 30

With respect to items 15-16, Applicant notes that the same arguments as present above concerning amended Claim 10 apply to amended Claim 28. In addition, in the present invention, the detection of the inclination of the lens(es) can be carried out using parallel light. The use of parallel light will be understood to make it possible to perform the detection of lens inclination regardless of (a) where each lens of the combined lenses is located along the optical axis direction, and (b) where each lens is located relative to a plane disposed normally to the optical axis.

In addition, with particular regard to claim 30 it is abundantly clear that the combination of the Jeon and Ichiura references cannot be even *prima facie* supported. This is because the light shielding plate (col. 1, line 46) disclosed in the Ichura reference is provided for generating ultra resolution.

Consequently, the usage of a light shielding plate is completely and totally different from, and foreign to, the detection of the inclination of the lens as discussed in the present invention and the Jeon reference. Hence, the combination proposed by the Examiner is at best the result of improper hindsight reasoning and should be withdrawn in response to this communication. A decision so holding is respectfully requested.

Furthermore, in the present invention, a light-shielding member is used for shielding the parallel light so as to prevent the parallel light from entering a lens functioning system. This in turn prevents the light that is used for the detection of the inclination of the lens from entering into/being reflected from the lens functioning system. Hence, the present invention attains a better (i.e., more accurate) detection of the inclination of the lens than any of the cited art.

Finally, it is noted that in Ichiura most of the light enters the lens functioning section, even though part of the incident light entering the lens functioning section is shielded such that the shielding plate disclosed by Ichiura is clearly different from the light shielding member of the present invention as to its purpose and function.

New Claims 31, 32, 35 and 36 present previously presented claims 12-15 as independent claims including all of the limitations of their respective base claims and any intervening claims wherein the Examiner's rejections under 35 USC 112 of the parent claim wording has been corrected. In view of the Examiner's comment in the currently outstanding Official Action concerning such an amendment, it is believed that new claims 31, 32, 35 and 36 are in condition for allowance.

New Claims 33 and 34 present claims 18 and 19 in independent form including all of the limitations of their amended parent claims and any intervening claims. It is believed that these new claims also are in condition for allowance.

Claim 37 is a new independent claim. Claim 38 is a new dependent claim from parent claim 28 as amended, and new claims 39 and 40 are dependent claims from amended claim 28 having the same limitations as claims 27 and 27 respectively. It is respectfully submitted that upon consideration of these new claims the Examiner will agree that they are in condition for allowance as well.

For these reasons, Applicant respectfully submits that the Examiner's bases for the rejections contained in the currently outstanding Official Action are insufficient to justify his conclusions. Therefore, reconsideration and withdrawal of those rejections in response to this communication are respectfully requested. In particular, reconsideration of this application as hereinabove amended and the allowance of Claims 1-7 and 9-40 in response to this communication are respectfully requested.

Finally, Applicants believe that additional fees are not required in connection with the consideration of this response to the currently outstanding Official Action. However, if for any reason a fee is required, a fee paid is inadequate or credit is owed for any excess fee paid, you are hereby authorized and requested to charge and/or credit Deposit Account No. **04-1105**, as necessary, for the correct payment of all fees which may be due in connection with the filing and consideration of this communication.

Respectfully submitted,

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